## BY ORDER OF THE COMMANDER 30TH SPACE WING

THE SPACE COMME

AIR FORCE INSTRUCTION 21-101

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Maintenance

AEROSPACE EQUIPMENT MAINTENANCE MANAGEMENT

## **COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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The OPR for this supplement is 30 SW/SEF (Major Jason Z. Wollard). This supplement implements and extends the guidance of Air Force Instruction (AFI) 21-101, Aerospace Equipment Maintenance Management, 1 June, 2004. It establishes a Base Foreign Object Damage (FOD) Prevention Committee, FOD Officers, and FOD Prevention Noncommissioned Officers (NCO). This publication does not conflict with, or is at least as restrictive as, Air Force-level guidance. It prescribes operating procedures, identifies specific responsibilities for FOD inspection, incident reporting, and routing. It is applicable to all activities that use the military parking ramp at Vandenberg Air Force Base for any purpose. This publication is consistent with Air Force Occupational Safety and Health (AFOSH) standards or Department of Labor Occupational Safety and Health Act (OSHA) standards. This publication applies to US Air Force active duty/reserve units and contractors assigned/attached to Vandenberg AFB. Send comments and suggestions for this instruction on AF Form 847, **Recommendation for Change of Publication**, through applicable channels, to the Safety Office (30 SW/SEF) Building 7015 Rm 47, 806 13th Street, Vandenberg Air Force Base, California 93437-5231. Maintain and dispose of records created as a result of the processes described in this instruction in accordance with Air Force Manual (AFMAN) 37-123, Management of **Records**, (will become AFMAN33-322 Volume 4) and Air Force WebRIMS Records Disposition Schedule located at <a href="https://webrims.amc.af.mi1/rds/index.cfm">https://webrims.amc.af.mi1/rds/index.cfm</a>.

18.23. **Foreign Object Damage (FOD).** All commanders will ensure compliance with this supplement and establish guidance such that every practical precaution is taken to prevent FOD. As applicable, organizations must ensure newly assigned personnel receive FOD Prevention Orientation/Familiarization Briefing during in-processing. The Newcomers' FOD briefing will be documented by the responsible organization. Airfield Management will ensure the flightline driver's training program stresses the importance of FOD prevention, control of vehicles on the flightline, and precautions to be taken prior to driving onto the airdrome hard surfaces from unpaved areas.

18.23.2.12.1. (Added) Personnel will not wear headgear at any time while on the flightline.

**EXCEPTIONS:** Wear of the wool "watch cap" is authorized and may be worn during aircraft launch, provided the cap is pulled down over the individual's ears. Ear defender/communication headset devices may be worn over the watch cap.

When conducting protocol duties on the flightline, the senior officer present, or his/her representative, will consider risk factors including weather and proximity to operating aircraft engines, and dictate if hats are to be worn by the official party. This exception does not apply to occasion baggage and aircraft support personnel. No individual wearing a hat, regardless of rank, will pass within 50 feet of an operating engine.

- 18.23.2.14. Government employees will not use or possess personal tools in any aircraft maintenance area. Contractors will comply with their contract concerning tool control and accountability.
- 18.23.2.19.1. (Added) Aircraft/weapons safety pins will not be placed on or left unsecured on aircraft parking ramps/movement areas at any time.
- 18.23.2.19.2. (Added) At no time will aircraft forms be left unsecured on the ramp or placed upon any external area of the aircraft.
- 18.23.2.19.3. (Added) Beverages may be consumed inside vehicles and the empty containers must be disposed of properly. Beverage containers are prohibited outside of the vehicles on the flightline. Glass bottles are prohibited at all times on the flightline, with the exception of fluid sample kits.
- 18.23.2.19.4. (Added) Smoking on the flightline is prohibited, including inside vehicles, except in designated areas approved by the Fire Chief.
- 18.23.2.20. (Added) Flightline Vehicle FOD Prevention:
- 18.23.2.20.1. (Added) Vehicle operators (including contractors) will inspect the cab interior, cargo bed area, and tires prior to use and remove all foreign material that could inadvertently fall on the ramp creating a FOD hazard.
- 18.23.2.20.2. (Added) All flightline vehicles will be equipped with a suitable, covered FOD container. Storage containers on tugs and in tractors may be used in place of self-closing containers. Containers will be secured so as not to tip over when vehicle is in motion. Containers will be emptied at the end of each shift.
- 18.23.2.20.3. (Added) Vehicle operators will make every attempt to enter the military aircraft parking ramp via paved surfaces using flightline gate entrances. Vehicles proceeding on the flightline from unpaved surfaces will pull the vehicle onto the flightline, then check tires. This ensures no FOD (i.e. rocks or stones, etc.) is tracked onto the ramp. To ensure that vehicle tires remain free of small rocks and other debris, vehicles entering or returning to the flightline will perform a tire FOD check prior to entering the flightline area. Emergency response vehicle operators responding to emergencies will ensure a foreign object check of all vehicles is conducted in the emergency area before departing. Rescue personnel must also ensure that the flightline is policed of all foreign objects in the area of an emergency response.
- 18.23.2.20.4. (Added) Prior to start of any vehicle on the ramp, the driver will ensure that all objects which could fall off the vehicle and become FOD hazards are secured. Vehicles regularly operating on the ramp, excluding fuel-servicing vehicles will have a covered can for disposal of the debris.
- 18.23.7.3. (Added) 30 CES Commander will have the primary responsibility for maintenance and clean-liness of military aircraft parking ramp surfaces.

- 18.23.7.4. (Added) The Chief of Airfield Management Operations (OSA) is responsible for inspection of the military aircraft parking ramp twice daily. Airfield Management will coordinate with 30 CES (Contract Management) to ensure continual inspection of areas where construction is in progress and will ensure that special requests for sweeper operations are met promptly during operating hours.
- **NOTE:** During inclement weather conditions, OSA will increase inspections of military aircraft parking ramp. 30 OSA is responsible for all runway and taxiway inspections. Any reports of FOD seen on the runways or taxiways by military aircraft will be reported to Base Operations.
- 18.23.7.5. (Added) Contractor maintenance personnel will comply with their contract, which will establish their foreign object damage prevention programs and procedures for the reporting of foreign object damage incidents.
- 18.23.7.6. (Added) Ramp Policing Responsibilities:
- 18.23.7.6.1. (Added) Commanders, including those of TDY units, will ensure areas designated below are policed on a daily basis. Special attention will be given to cleaning of cracks and expansion seams in hard surfaced areas where engines will be operated. All personnel will take an active part in daily policing to effectively reduce the FOD potential to engines and tires.
- 18.23.7.6.2. (Added) Each operational unit will be responsible for their aircraft parking area, the adjacent portions of the access road, as well as their assigned hangar space. The transient parking area is the responsibility of transient alert personnel.
- 18.23.7.6.3. (Added) A sweeper truck is scheduled to clean all ramp zones each day, Monday through Friday. Additional areas identified for cleaning by Airfield Operations during daily inspections will be reported to the sweeper driver for action. Contact Airfield Operations if a sweeper is needed for unscheduled sweeps.
- 18.23.7.6.4. (Added) Facilities adjacent to aircraft parking ramps, taxiways, or engine run areas, as well as any shops or hangars used for aircraft/component maintenance, will be policed by the owning organization. Particular attention to closing dumpster lids during high winds must be addressed by each facility manager.
- 18.23.7.6.5. (Added) Personnel will be constantly alert for any form of FOD during all phases of a job. Special attention must be given to small items of debris, such as safety wire, bolts, nuts, screws, etc. Loose materials of this kind will be placed in FOD containers during the normal course of job performance. After the job is completed, a final check of the entire work area will be made and all FOD disposed of.
- 18.23.8.6. (Added) The Wing FOD monitor will perform random Foreign Object Damage (FOD) inspections. The contractor's Program Managers will ensure a similar program is carried out. All FOD incidents will be discussed at FOD Prevention Committee meetings to ensure information regarding FOD hazards receives base wide dissemination along with the appropriate corrective action.
- 18.23.9.1. Any aircraft maintenance activity discovering foreign object damage to any aircraft/engine will report findings to its Maintenance Officer/Supervisor. The Wing FOD Monitor will be notified and, in turn, will contact the Wing Safety office and Airfield Management. The Maintenance Officer/Superintendent (primary) or a representative from 30 SW/SE (alternate) will impound the aircraft until the damage can be evaluated. No maintenance action will be accomplished without the expressed concurrence of the impoundment official. The Wing FOD Monitor and a representative from Wing Safety will jointly

investigate foreign object damage incidents on all military and contracted aircraft. They will perform the initial investigation following AFI 91-204, *Safety Investigations and Reports*.

## **NOTES:**

Civilian aircraft that are owned or operated by the Air Force, unless performing an official Air Force mission, fall under the control of the FAA and the National Transportation Safety Board (NTSB). The Air Force will work with the FAA and the NTSB during investigation to ensure safety and liability issues are covered.

The impoundment official for aircraft not assigned/attached to Vandenberg AFB will automatically be the home station superintendent of maintenance. If the home station superintendent of maintenance is not available, then 30 SW/SE will be the impounding organization. The impoundment will be released to the maintenance team chief of the owning organization, upon the team's arrival.

- 18.23.9.1.1. (Added) The Wing Safety office and FOD Monitor will investigate the FOD mishap and provide an initial report, in accordance with AFI 91-204, of all circumstances surrounding the incident. The 30 SW/CV and 30 MSG/CC will be briefed within 12 hours of the incident and reporting will be done in accordance with AFI 91-204.
- 18.23.9.1.2. (Added) The Wing FOD Monitor or his designated representative will submit a written report on each FOD incident to 30 SW/CV NLT seven working days after completion of the investigation. The report will be in accordance with the format in AFI 91-204.
- 18.23.9.1.3. (Added) The Wing FOD Monitor will ensure the written report is coordinated through the Wing Safety office and 30 MSG/CC prior to being sent to 30 SW/CV for review and signature.
- 18.23.9.2.1. Bird damage to engines is not chargeable as a FOD event, but must be investigated and documented IAW AFI 91-204. Such incidents are normally reported under the Bird Avoidance Strike Hazard (BASH) Program. Contact Wing Safety with details as soon as possible after discovering bird related engine damage.
- 18.23.10.2. (Added) The Vandenberg AFB FOD Committee will meet quarterly, unless the MAJCOM standard FOD rate is exceeded. In the event that MAJCOM standards are exceeded, the committee will meet monthly until the standards are met. The committee chairperson may direct additional meetings as necessary.
- 18.23.10.2.1. (Added) Representatives from each of the agencies listed below are appointed as members of the Vandenberg AFB FOD Committee. Personnel occupying these positions or their alternates will attend the meetings. All appointments will be coordinated through the Wing FOD Monitor by letter, appointing a primary and an alternate member. Committee members included in **Table 18.2** (Added)

## **Table 18.2 (Added) FOD Prevention Committee Membership**

Organization	Function
30 SW/SEF	Flight Safety and Committee Chair
30 CES/CEF	Fire Department
30 LRS/LGRDM	Pax/Cargo Handling
30 OSS/OSA	Airfield Management
30 SFS/SFOS	Security Forces
30 OSS/OSAB	Transient Alert Maintenance
76 HF/COR	Helicopter Maintenance Quality Assurance
Helicopter Maintenance Contractor	Helicopter Maintenance

- 18.23.10.2.2. (Added) The Wing FOD Monitor will develop the meeting agenda and brief the members of the FOD Prevention Committee.
- 18.23.10.2.3. (Added) The Wing FOD Monitor will be appointed by the Wing Vice Commander in writing. The appointee should have an aircraft maintenance background when possible.
- 18.23.10.2.4. (Added) Each operational, maintenance, and civil engineering squadron commander/project manager will:
- 18.23.10.2.4.1. (Added) Appoint a Unit FOD Prevention Officer/NCO, or manager. These individuals will manage the squadron/contract program and make sure that ramps/areas of responsibility are policed daily. A copy of the appointment letter shall be furnished to the wing FOD monitor.
- 18.23.10.2.4.2. (Added) Ensure all squadron and contract maintenance personnel are made aware of this supplement and comply with the provisions therein.
- 18.23.10.2.4.3. (Added) Be a participating member of the Wing FOD Prevention Committee and attend scheduled meetings.
- 18.23.10.2.4.4. (Added) Make sure all publicity material concerning FOD (such as, FOD bulletin board, posters, committee minutes, and so forth) is disseminated throughout the area of responsibility.
- 18.23.10.2.5. (Added) The Wing FOD Monitor will develop and implement a suitable FOD reduction awards program. Purpose of this program would be to heighten FOD awareness and reduce FOD incidents through positive recognition of members whose action(s) reduced FOD potential or averted a FOD incident.

FRANK GALLEGOS, Colonel, USAF Commander